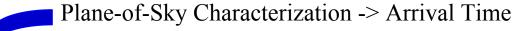
# User Needs (Forecasting)

Rob Steenburgh Space Weather Prediction Center

## CME Arrival, Impacts FCST

Situational Awareness

Detection





Characterization with CAT

Modeling (WSA-Enlil on WCOSS) -> Arrival Time

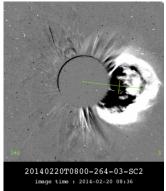
Predicting Storm Strength?

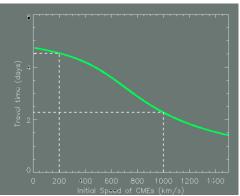
Crafting the Message

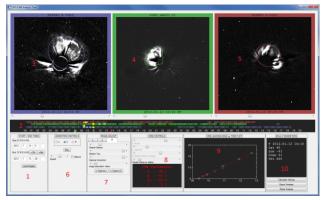
Watch - Warning - Alert

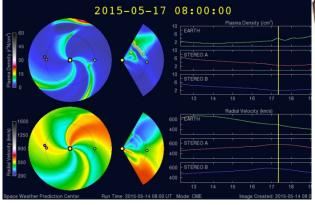
#### **CME Arrival & Impacts Forecast**















### CME Arrival, Impacts FCST

Situational Awareness

Detection

Plane-of-Sky Characterization -> Arrival Time

Characterization with *Enhanced* CAT

Modeling Local & WCOSS -> Arrival Time

Predicting Storm Strength?

Crafting the Message

Watch - Warning - Alert

#### **Users & Needs**









SWPC Forecasters provide Integrated Decision Support Services (IDSS) to:

**Emergency Managers** 

Electric Utilities

Transportation Industry

Space Industry

...Pigeon Racers

# Forecasters need to know:

What's inside

Confidence Intervals

Model Strengths and Weaknesses

Results of ongoing Model V&V

Value Added by Forecaster-in-the-Loop

#### End Users need to know:

Timing, Intensity,
Duration of IMPACTS

FCST Confidence

Scenarios (best, worst, most likely cases)

#### Thank You

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DON'T WORRY WE'LL FIGURE IT OUT

